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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/627,487

07/25/2003

Timothy R. Machold

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FULWIDER PATTON LLP  
HOWARD HUGHES CENTER  
6060 CENTER DRIVE, TENTH FLOOR  
LOS ANGELES, CA 90045

EXAMINER

NASSER, ROBERT L

ART UNIT

PAPER NUMBER

3735

MAIL DATE

DELIVERY MODE

01/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/627,487	<b>Applicant(s)</b> MACHOLD ET AL.	
	<b>Examiner</b> ROBERT L. NASSER	<b>Art Unit</b> 3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 30 and 32-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30, 32-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/18/2007</u> .  | 6) <input type="checkbox"/> Other: _____                          |

The examiner regrets that upon further review, the following rejections were deemed to apply.

In addition, the examiner notes that while 5 or 6 references are being used in the combination, the features being modified are minor and do not change the operating performance of the base reference.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 30 is rejected under 35 U.S.C. 103 as being unpatentable over Saab 5624392 in view of Saringer 58954128, and Utterberg et al 6383158, Noda et al 6146411 and Hyatt 4800823. Saab shows a heat exchange catheter system having a heat exchange catheter, but it does not show the fluid supply structure. Saringer teaches in figures 22-24 a device to supply heat exchange fluid to a heat exchange device, a pad in this case, including a pump 314, an air vent 358 (see column 10, lines 47-50), an external heat exchanger 310, and an external fluid supply 320. The examiner notes that the fluid supply is external to the pump and heat exchanger. It would have been obvious to modify Saab to use such a fluid supply circuit, as it is merely the use of a known circuit to supply fluid to devices like Saab. The combination does not have vents that do not allow passage of liquid. Utterberg further teaches a hydrophobic vent is another known method to eliminate air from a fluid line. Hence, it

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would have been obvious to modify the combination to use such a vent, as it is merely the substitution of one known equivalent air removal technique for another. The combination performs the steps of the method in claim 30. Noda further teaches providing a level sensor in the fluid supply circuit and shutting off the fluid when the level is too low. As such, it would have been obvious to modify the combination to use a fluid level sensor, to ensure patient safety. The combination does not activate a valve to add fluid into the circuit. Hyatt is selected from many references that teach refilling a fluid circuit when the levels are too low by opening a valve in response to the level sensor. Hence, it would have been obvious to modify the combination to use such a refill circuit, to eliminate the need for human interaction and to provide for continuous use.

Claims 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saab in view of Saringer, and Utterberg et al, Noda, and Hyatt, as applied to claim 30 above, further in view of Leung 4548212. Leung teaches damping chambers 26 and 27 for damping pressure variations in the flow to eliminate turbulence. Hence, it would have been obvious to modify Fontenot to use such a dampener, to avoid turbulence and provide a more uniform distribution of temperature.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saab in view of Saringer, Utterberg et al, Noda, and Hyatt as applied to claim 30 above, further in view of Kolen et al 5980561. Kolen teaches using a constant pressure circulation pump in column 6, line 41. The examiner takes official notice that it is known to drive a pump to produce constant pressure out by supplying it with constant current. Hence, it

would have been obvious to modify the above combination, as it is merely the substitution of one known equivalent pump for another.

Applicant's arguments filed 10/18/2007 have been fully considered but they are moot in view of the new grounds of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT L. NASSER whose telephone number is (571)272-4731. The examiner can normally be reached on m-f 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert L. Nasser Jr/  
Primary Examiner  
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December 20, 2007